

RATIO FOR APPRENTICE ELECTRICIANS ON JOB SITE

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House Bill 4813 (reported from committee as substitute H-4)

Sponsor: Rep. Amanda Price

Committee: Workforce and Talent Development

Complete to 12-14-15

Analysis available at
<http://www.legislature.mi.gov>

BRIEF SUMMARY: House Bill 4813 would amend Section 3e of the Electrical Administrative Act to increase the required ratio of electrical journeyman or master electrician to apprentice from one-to-one to one-to-three. The bill would make other amendatory changes, as detailed below, and would take effect 90 days after it is enacted into law.

FISCAL IMPACT: The bill could increase the number of individuals applying for registration as an electrical apprentice as more apprentice jobs at worksites become available; however, the fee for registration as an apprentice are apparently sufficient to offset LARA's costs to process the registration.

THE APPARENT PROBLEM:

According to testimony presented by representatives from the building trades industry, Michigan is encountering a shortage of journeyman and master electricians, making it difficult to train enough apprentice electricians for eventual licensure as a journeyman or master electrician. In addition, speakers noted that because not all jobs being performed by apprentice electricians are complicated enough or carry significant risk of injury as to warrant a one-to-one ratio, construction firms should be allowed to hire a ratio of journeyman and master electricians to apprentices suitable for the job being performed, rather than paying more for the more skilled (and therefore more expensive) journeyman and master electricians at the current one-to-one ratio.

THE CONTENT OF THE BILL:

House Bill 4813 would amend Section 3e of the Electrical Administrative Act to increase the required ratio of electrical journeyman or master electrician to apprentice from one-to-one to one-to-three. The bill would make other amendatory changes, as detailed below, and would take effect 90 days after it is enacted into law.

Besides increasing the maximum ratio of journeyman or master electrician and apprentice electricians allowed on a job site, the bill also would remove a current provision that allows up to two apprentices per electrical journeyman or master electrician if the jobsite is a residential single family dwelling or a multifamily dwelling not exceeding eight units per building. (This would no longer be relevant with the general maximum three apprentices-to-one journeyman or master electrician ratio established in the bill.)

The bill would also require the Electrical Administrative Board to approve any bona fide apprenticeship training program that is equivalent to, or exceeds the requirements of, those imposed by the Office of Apprenticeship in the US Department of Labor.

The act currently defines the following terms:

"Apprentice electrician": an individual other than an electrical contractor, master electrician, or electrical journeyman, who is engaged in learning about and assisting in the installation or alteration of electrical wiring and equipment under the direct personal supervision of an electrical journeyman or master electrician.

"Electrical journeyman": a person other than an electrical contractor who, as his or her principal occupation, is engaged in the practical installation or alteration of electric wiring. An electrical contractor or master electrician may also be an electrical journeyman.

"Master electrician": a person having the necessary qualifications, training, experience, and technical knowledge to supervise the installation of electrical wiring and equipment in accordance with the standard rules and regulations governing that work.

BACKGROUND INFORMATION:

To become licensed as an electrical journeyman, an individual must be at least 20 years old and do all of the following:

- File a completed application form provided by the Department of Regulatory Affairs (LARA).
- Pay a \$100 examination fee and pass an examination provided for by the board and the LARA.
- Pay the \$40 license fee.
- Meet either of the following:
 - Have at least 8,000 hours of experience obtained over a period of at least four years related to electrical construction or maintenance of buildings or electrical wiring or equipment under the direct supervision of an individual licensed under this act.
 - Served as an interior electrician or in an equivalent job classification while on active duty as a member of the armed forces; be honorably discharged from that military service in the one-year period preceding the date the license application is filed; and have, and provide with the application an affidavit signed by a commanding officer, supervisor, or military superior with direct knowledge of the applicant's service that states that he or she has, at least 8,000 hours of entry-level experience in and basic knowledge of each of the following:
 - General knowledge of the electrical trade, including terminology and the ability to make practical calculations.
 - The determination of system and circuit grounding and design and use requirements for grounding, including choosing proper size grounding conductors.

- Knowledge of circuit classifications and ratings and design and use requirements for circuits, including branch circuit loads.
- The determination of ampacity, type of insulation, usage requirements, methods of installation, protection, support, and termination.
- Knowledge regarding the installation of motors and control circuits.
- The calculation of electrical loads and determination of proper size, rating, and type of service and feeder conductors.
- Knowledge regarding fuses, circuit breakers, and all types of protective devices for conductors and equipment.
- Knowledge of all types of raceways and their uses, including determining proper size, conductor fill, support, and methods of installation.
- Knowledge of circuits and equipment characterized by usage and electrical power limitations, including differentiating them from electric light and power circuits.
- Knowledge of all types and applications of lighting fixtures, ratings, requirements for occupancies, special provisions, and clearances.

To become licensed as a master electrician, an individual must be at least 22 years old and do all of the following:

- File a completed application form provided by LARA.
- Pay a \$100 examination fee and pass an examination provided for by the board and department.
- Pay a \$50 license fee.
- Have at least 12,000 hours of experience obtained over a period of six or more years related to electrical construction, the maintenance of buildings, or electrical wiring or equipment under the supervision of a master electrician.
- Have held an electrical journeyman's license for at least two years.

ARGUMENTS:

For:

Supporters of the bill say that by allowing more flexibility on job sites, contractors will be able to save the customer money by hiring at a maximum three-to-one ratio if deemed appropriate. Additionally, supporters note that concerns over greater risk of injury because of the increased maximum ratio are overblown, as contractors have too much at stake to risk injury by hiring apprentices for jobs where a journeyman or master electrician would be better qualified.

Against:

Opponents of the bill allege contractors will hire apprentices over journeyman and master electricians based on cost savings rather than the scope of work or working safety, leading to greater risk of injury or improperly completed work. Critics also worry that this will push more master and journeyman electricians out of Michigan, as they will be passed over in hiring in favor of apprentice electricians, exacerbating the current shortage of more skilled electricians as wages are driven down.

POSITIONS:

The following indicated support for the bill:

National Federation of Independent Business (12-3-15)
Associated Builders and Contractors (12-3-15)
Grand Rapids Area Chamber of Commerce (12-3-15)
Feyen Zylstra, electrical services firm (10-15-15)
Home Builders Association of Michigan (10-15-15)
Consolidated Electrical Contractors (10-15-15)

The following indicated neutrality or took no position on the bill:

Department of Licensing and Regulatory Affairs (No position, 10-15-15)
Town & Country Group (neutral, 10-15-15)

The following indicated opposition to the bill:

IBEW MI State Conference (10-15-15)
Michigan Chapter National Electrical Contractors Association (10-15-15)

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■ This analysis was prepared by nonpartisan House Fiscal Agency staff for use by House members in their deliberations, and does not constitute an official statement of legislative intent.